CLAIMS

We claim:

1. A method of classifying a plurality of informational items in an information retrieval system, comprising the steps of:

   detecting an access of a first informational item;

   detecting an access of a second informational item;

   applying an ensemble of clustering algorithms; and

   - creating a relationship link between said first informational item and second informational item.

2. The method as recited in claim 1 wherein said step of detecting the second informational item includes the detecting of a plurality of informational items.

3. The method as recited in claim 2, further comprising the step of:

   determining a weighting or strength for said relationship link.

4. The method as recited in claim 3, further comprising the step of :

   applying an algorithm for data aging wherein the usage of the relationship link is monitored and used as feed back for the weighting associated with the relationship link.

5. The method as recited in claim 4, further comprising the step of :

   applying a pruning algorithm wherein external information regarding the usefulness of at least one relationship link is utilized to modify weighting/strength or existence of a recorded relationship link.

6. The method as recited in claim 5, wherein said pruning algorithm is repeatedly applied to determine if a recorded relationship link should be ignored or placed in a list of bad links.

7. The method as recited in claim 5, wherein said pruning algorithm makes use of a user determined feedback of the usefulness of a relationship link.

8. The method as recited in claim 2, wherein said ensemble includes a plurality of algorithms and wherein said relationship link is weighted in direct proportion to the number of algorithms within said ensemble of algorithms that determine the existence of said relationship link.

9. The method as recited in claim 2, wherein said relationship link is positioned in a list in direct proportion to the degree of consensus among said ensemble of algorithms.

10. The method as recited in claim 2, wherein said ensemble includes a plurality of algorithms and wherein each algorithm within said ensemble of algorithms runs independently of all other algorithms.

11. The method as recited in claim 2, further comprising the step of merging the outputs of said ensemble of algorithms.

12. The method as recited in claim 2, further comprising the step of recording said relationship link in a Bayesian-type Belief Network.

13. A Bayesian-type Belief Network wherein the traditional Baysian Belief Network components are modified, the modification comprising:

   a set of random Frequently Asked Questions(FAQ) or Data;

   a set of relationships between nodes;

   a weight which describes the strength of relationship between each node; and

   a network structure which allows cycles and other structures with no limitations.

14. An apparatus for providing classification of informational items in an information retrieval system comprising:

means for detecting an access of informational items;

means for applying an ensemble of clustering algorithms; and

means for creating relationship links between said informational items to enhance the effectiveness of said system.

15. The apparatus of claim 14 including:

means for aging said relationship links;

means for pruning said relationship links;

means for weighting said relationship links; and

means for arranging said relationship links in direct proportion to the outcome of said ensemble of algorithms.

16. The apparatus of claim 15 including means for merging the resulting output of said ensemble of algorithms into a Bayesian-type Belief Network.

17. A computer readable storage medium having stored thereon a computer program for implementing a method of classifying a plurality of information items in an information retrieval system, said computer program comprising a set of instructions for implementing the steps recited in claim 2.

18. The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for clustering the resulting output of said ensemble of algorithms into a Bayesian-type Belief Network.

19. The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through weighting of said relationship links.

20. The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through pruning of said relationship links.

21. The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through aging of said relationship links.

22. The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through weighting, pruning and aging of said relationship links.

23. A method for retrieving help information in a system where informational items are not fixedly mapped to one another comprising the steps of:

   determining an efficient path to arrive at a particular help item of interest; and

   storing a context in which a help item is sought as well as the path to said help item.

24. The method as recited in claim 23, further comprising the step of reexamining and dynamically changing said efficient path to a particular help item upon subsequent help item searches or retrieval.

25. The method as recited in claim 23, wherein said efficient path is determined based on said context in which said help item was sought.